

Claims

1. A dental coating kit comprising:

a primer composition including an acidic group-containing polymeric monomer (a), water (b) and a water-soluble solvent (c); and

5 a surface smoothing composition including a polyfunctional polymeric monomer (f), a volatile solvent (g) and a photopolymerization initiator (h).

2. The dental coating kit according to Claim 1,

wherein the primer composition includes the acidic group-containing polymeric monomer (a) in a ratio of 1 wt% through 90 wt%, the water (b) in a
10 ratio of 0.1 wt% through 90 wt% and the water-soluble solvent (c) in a ratio of 1 wt% through 98 wt%, and

the surface smoothing composition includes the polyfunctional polymeric monomer (f) in a ratio of 40 wt% through 98 wt%, the volatile solvent (g) in a ratio of 1 wt% through 59 wt% and the photopolymerization initiator (h)
15 in a ratio of 0.01 wt% through 10 wt% based on a total weight of polymeric monomer(s) included in the surface smoothing composition.

3. The dental coating kit according to Claim 1 or 2,

wherein the photopolymerization initiator (h) is an acylphosphine oxide.

4. The dental coating kit according to Claim 3,

20 wherein the acylphosphine oxide is 2,4,6-trimethylbenzoyldiphenylphosphine oxide.

5. The dental coating kit according to any of Claims 1 through 4,

wherein the surface smoothing composition has viscosity at 30°C of 30 cP through 3000 cP.

25 6. The dental coating kit according to any of Claims 1 through 5,

wherein the dental coating kit is used for a bleached tooth.

7. A dental coating method comprising the steps of:

applying, on a tooth, a primer composition including an acidic group-containing polymeric monomer (a), water (b), a water-soluble solvent (c)

5 and, if necessary, a polymerization initiator;

forming a primer layer by drying or polymerically curing the primer composition;

applying, on the primer layer, a surface smoothing composition including a polyfunctional polymeric monomer (f), a volatile solvent (g) and a

10 photopolymerization initiator (h); and

forming a surface layer by polymerically curing the surface smoothing composition through light irradiation.

8. A dental coating kit comprising:

a primer composition including an acidic group-containing polymeric
15 monomer (a), water (b) and a water-soluble solvent (c);

a coating composition including a polymeric monomer (d) and a photopolymerization initiator (e); and

a surface smoothing composition including a polyfunctional polymeric monomer (f), a volatile solvent (g) and a photopolymerization initiator (h).

20 9. The dental coating kit according to Claim 8,

wherein the primer composition includes the acidic group-containing polymeric monomer (a) in a ratio of 1 wt% through 90 wt%, the water (b) in a ratio of 0.1 wt% through 90 wt% and the water-soluble solvent (c) in a ratio of 1 wt% through 98 wt%,

25 the coating composition includes the polymeric monomer (d) in a ratio of

40 wt% through 99.99 wt% and the photopolymerization initiator (e) in a ratio of 0.01 wt% through 10 wt% based on the polymeric monomer (d), and

the surface smoothing composition includes the polyfunctional polymeric monomer (f) in a ratio of 40 wt% through 98 wt%, the volatile solvent (g) in a ratio of 1 wt% through 59 wt% and the photopolymerization initiator (h) in a ratio of 0.01 wt% through 10 wt% based on a total weight of polymeric monomer(s) included in the surface smoothing composition.

10. The dental coating kit according to Claim 8 or 9,
wherein the coating composition further includes an inorganic filler with a refractive index of 1.9 or more and colloidal silica.

11. The dental coating kit according to any of Claims 8 through 10,
wherein the coating composition has viscosity at 30°C of 300 cP through 50,000 cP.

12. The dental coating kit according to any of Claims 8 through 11,
wherein the polymeric monomer (d) includes a hydrophobic polymeric monomer and a hydrophilic polymeric monomer, and
the coating composition includes the hydrophilic polymeric monomer in a ratio of 5 wt% through 50 wt%.

13. The dental coating kit according to Claim 12,
wherein the hydrophilic polymeric monomer is 2-hydroxyethyl methacrylate.

14. The dental coating kit according to any of Claims 8 through 13,
wherein the dental coating kit is used for a bleached tooth.

15. A dental coating method comprising the steps of:
applying, on a tooth, a primer composition including an acidic

group-containing polymeric monomer (a), water (b), a water-soluble solvent (c), and, if necessary, a polymerization initiator;

forming a primer layer by drying or polymerically curing the primer composition;

5 applying, on the primer layer, a coating composition including a polymeric monomer (d) and a photopolymerization initiator (e);

forming an intermediate layer by polymerically curing the coating composition through light irradiation;

10 applying, on the intermediate layer, a surface smoothing composition including a polyfunctional polymeric monomer (f), a volatile solvent (g) and a photopolymerization initiator (h); and

forming a surface layer by polymerically curing the surface smoothing composition through light irradiation.